

Amendments to the Claims:

The below claim listing replaces all prior versions of the claims in the application.

Claims Listing

1.(Currently Amended) A device for positioning a brush of a wafer cleaning system, the device comprising:

 a calibration unit of a thickness substantially identical to that of a wafer to be cleaned;

 at least one light source positioned to generate at least one light beam across a surface of the calibration unit in a plane substantially corresponding to the surface of the calibration unit; and

 at least one light detector positioned to detect the at least one light beam;

 wherein ~~when the brush contacts the plane~~ as the brush is moved toward the surface of the calibration unit, the at least one light beam is interrupted by the brush when a cleaning end of the brush contacts the plane.

2.(Original) The device of claim 1, wherein the at least one light detector generates a first indication if the at least one light beam is not interrupted by the brush, and a second indication if the at least one light beam is interrupted by the brush.

3.(Original) The device of claim 2, further comprising a processor for processing the first and second indications.

4.(Original) The device of claim 3, further comprising a controller responsive to the processor for automatically stopping the brush when the brush interrupts the at least one light beam.

5.(Original) The device of claim 1, further comprising a controller for automatically stopping the brush when the brush interrupts the at least one light beam.

6. (Original) The device of claim 3, further comprising a controller for manually stopping the brush when the brush interrupts the at least one light beam.

7.(Original) The device of claim 1, further comprising a controller for manually stopping the brush when the brush interrupts the at least one light beam.

8. (Original) The device of claim 1, further comprising at least one indicator light for indicating when the at least one light beam has been interrupted by the brush.

9.(Cancelled)

10.(Previously Presented) The device of claim 1, wherein the at least one light source and the at least one light detector are disposed on the surface of the calibration unit.

11.(Currently Amended) A wafer cleaning system comprising:

a wafer rotating mechanism;

a brush;

a calibration unit of a thickness substantially identical to that of a wafer to be cleaned;

at least one light source positioned to generate at least one light beam across a surface of the calibration unit in a plane substantially corresponding to the surface of the calibration unit; and

at least one light detector positioned to detect the at least one light beam;

wherein ~~when the brush contacts the plane~~ as the brush is moved toward the surface of the calibration unit, the at least one light beam is interrupted by the brush when a cleaning end of the brush contacts the plane.

12.(Original) The system of claim 11, wherein the at least one light detector generates a first indication if the at least one light beam is not interrupted by the brush, and a second indication if the at least one light beam is interrupted by the brush.

13.(Original) The system of claim 12, further comprising a processor for processing the first and second indications.

14.(Original) The system of claim 13, further comprising a controller responsive to the processor for automatically stopping the brush when the brush interrupts the at least one light beam.

15.(Original) The system of claim 11, further comprising a controller for automatically stopping the brush when the brush interrupts the at least one light beam.

16.(Original) The system of claim 13, further comprising a controller for manually stopping the brush when the brush interrupts the at least one light beam.

17.(Original) The system of claim 11, further comprising a controller for manually stopping the brush when the brush interrupts the at least one light beam.

18.(Original) The system of claim 11, further comprising at least one indicator light for indicating when the at least one light beam has been interrupted by the brush.

19.(Cancelled)

20.(Original) The system of claim 19, wherein the at least one light source and the at least one light detector are disposed on the surface of the calibration unit.

21-22.(Cancelled)

23.(New) A device for positioning a brush of a wafer cleaning system, the device comprising:
a calibration unit of a thickness substantially identical to that of a wafer to be cleaned;
at least one light source for positioning adjacent a peripheral edge of the calibration unit, to generate at least one light beam across a surface of the calibration unit in a plane substantially corresponding to the surface of the calibration unit; and
at least one light detector for positioning adjacent the peripheral edge of the calibration unit, to detect the at least one light beam;
wherein when the brush contacts the plane, the at least one light beam is interrupted by the brush.

24.(New) A wafer cleaning system comprising:

- a stage including a wafer rotating mechanism;

- a brush;

- a calibration unit of a thickness substantially identical to that of a wafer to be cleaned;

- at least one light source positioned on the stage adjacent to a peripheral edge of the calibration unit for generating at least one light beam across a surface of the calibration unit in a plane substantially corresponding to the surface of the calibration unit; and

- at least one light detector positioned on the stage adjacent to the peripheral edge of the calibration unit for detecting the at least one light beam;

- wherein when the brush contacts the plane, the at least one light beam is interrupted by the brush.